Special Issue

Advances in Micro-Nano Optical Manufacturing

Message from the Guest Editors

The field of micro-nano optical manufacturing has witnessed transformative progress in recent years, driven by the urgent need for subwavelength-scale optical components and systems across photonics, biomedical sensing, and quantum technology applications. Breakthroughs in nanoscale fabrication methodologies, ultra-precision metrology, and functional material engineering are enabling unprecedented control over light-matter interactions at micro-nano dimensions. This Special Issue highlights cutting-edge innovations in micro-nano optical manufacturing technologies, with a particular focus on bridging fundamental research to industrial-scale implementations. Key areas of interest include, but are not limited to, the following: advanced nanolithography techniques, functional micro-optics fabrication, precision characterization methods for sub-100nm features, and system-level integration strategies for wafer-scale optical systems. Emerging topics such as quantum dot/nanorod manufacturing, AI-driven process optimization, and 3D-printed micro-optical arrays are particularly encouraged.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Photonics* (ISSN 2304-6732). *Photonics* is an online open access journal covering both the fundamental and applications of optics and photonics. *Photonics* strives to provide an avenue to allow authors to disseminate their scientific findings—both theoretical/ simulations and experimental works—in highly accessible peer-reviewed journal publications. The manuscript in *Photonics* will be handled with quick turnaround production processing time. We welcome authors to submit their manuscripts for publications in *Photonics*. Our goal in *Photonics* is to enable fast dissemination of high impact works to the scientific community.

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